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REMARKS

Claims 1, 6, 23, 25 and 26 are amended herein. Claims 1, 2, 4-20 and 23-26 remain pending in the above-identified application.

Applicant appreciates the courtesies extended during the telephonic interview conducted on August 10, 2005, between the Examiner, the Supervisory Patent Examiner and Applicant's undersigned attorney.

Claims 1, 2, 4-20 and 23-26

Applicant respectfully requests reconsideration of the rejection of claims 1, 2, 4-20 and 23-26 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,952,526 (Pribat) or U.S. Patent No. 6,294,440 (Tsuda) in view of U.S. Patent No. 5,672,520 (Natsume). As amended, claims 1, 2, 4-20 and 23-26 recite, among other things, the pitch of pattern elements of the first plurality of nitride patterns and the pitch of pattern elements of the second plurality of nitride patterns are different and the second plurality of patterns partly overlies and partly does not overlie the first plurality of patterns in the direction of the thickness of the crystal due at least in part to the different pitches.

Pribat discloses a method of making a semiconductor including first insulation bands (20, 21 and 22) and second insulation bands (40, 41 and 42), wherein the respective bands have equal spacing or pitch, as seen for example in Figs. 7-9. Tsuda discloses a method for making a semiconductor wherein respective masks (102, 104) have equal spacing or pitch, as seen for example in Figs. 1-3. Natsume discloses a method of checking alignment accuracy in a photolithographic step. Further Natsume discloses pattern elements that are part of a photomask and not part of the crystal as claimed. Pribat, Tsuda and Natsume, individually and in any combination, fail to show or suggest the pitch of pattern elements of the first plurality of *nitride* patterns and the pitch of pattern elements of the second plurality of *nitride* patterns are different and the second plurality of patterns partly overlies and partly does not overlie the first plurality of patterns in the direction of the thickness of the crystal due at least in part to the different pitches.

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During the Interview on August 10, 2005, the Examiner and Supervisory Patent Examiner informed Applicant that the references do not appear to show nitride patterns as claimed and that the Natsume reference should apparently be removed as a reference if Applicant amended the claim to clarify that the patters are nitride patterns. The Examiner and Supervisory Patent Examiner informed Applicant that an Interview Summary stating this agreement would be mailed to Applicant immediately.

Further, Natsume teaches away from the present invention. Section 2141.02 of the M.P.E.P. states, "(a) prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." One of the primary benefits of the present invention is the ability to make a high quality crystal where dislocations do not reach the crystal and costly accurate alignment of relative mask patterns is not needed. (see e.g., page 14, lines 2-6; page 30, lines 2-10; page 6, lines 12-15; and page 3, lines 3-6). The *entire* purpose of Natsume is alignment accuracy, a requirement which the present invention obviates by including elements that partly overlies and partly do not overlies each other due at least in part to pitch differences between the elements.

Further regarding claim 4, the Office Action asserts it would have been obvious to modify the combination of Tsuda and Natsume or Pribat and Natsume to select any proportion of pitches to produce a desired alignment. The Office Action's assertion is flawed for at least two reasons. First, the given motivation is in error. Because the purpose of Natsume is to achieve perfect alignment/overlap (see e.g., column 3, lines 58-65), any adjustments to the pitches of Natsume would be made to obtain better alignment/overlap. The relationship between pitches recited in present claim 4 is tailored to achieve the specific result of obtaining one or more *non*-overlapping regions (see page 14, lines 7-17), not simply to achieve better/more overlap. Thus, it would not have been obvious to adjust the pitches of Natsume to match the claimed relationship because the result the relationship is tailored toward is quite different from any result adjusting the pitches of Natsume would be tailored toward.

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The two immediately preceding paragraphs describe the manner in which Natsume teaches away from the present invention. Because Natsume teaches away from the claimed invention and the references do not show or suggest the claimed relationship, a *prima facie* case of obviousness has not been made.

Further regarding claim 10, the references, individually and in any combination, fail to show or suggest a region where the second plurality of nitride patterns overlies the first plurality of nitride patterns in the direction of the thickness of the crystal and a region where the second plurality of patterns does not overlie the first plurality of patterns in the direction of the thickness of the crystal wherein both regions coexist in both directions of the two directions. Regarding claim 10, the Office Action (in lines 4-6 of page 6) states the references teach using SiO₂ mask on a sapphire substrate to grow GaN. This statement fails to address the claim language. Further, the Response to Arguments section of the Office Action (in lines 10-13 of page 8) states that pattern elements arranged in a vertical and horizontal direction meet the "two directions" feature. However, claim 8, from which claim 10 directly depends, clearly states that the two directions are "in a plane almost parallel to the surface of the basal body." Therefore, the "two directions" of claim 10 are substantially perpendicular to the crystal growth direction and cannot be met by elements arranged in a vertical and a horizontal direction.

Further regarding claim 16, the references, individually and in any combination, fail to show or suggest a step of selectively etching the base layer using the first pattern as a mask. The Office Action does not address the claim language, "the base layer using the first plurality of patterns as a mask." The Office Action (in lines 7 and 8 of page 6) states the references disclose "etching and using a masking material," but does not address how the reference show or suggest etching a base layer using the first plurality of patterns. The references fail to show or suggest a step of selectively etching the base layer using the first pattern as a mask.

Further regarding claim 17, the references, individually and in any combination, fail to show or suggest a step of selectively etching the intermediate layer using the second plurality of patterns as a mask and a step of removing the masking

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material of the second plurality of patterns between the second pattern formation step and the second growth step. Regarding claims 16-19, the Office Action (in lines 7 and 8 of page 6) states, "[the references] teach[] etching and using a masking material," but the action does not address the particular claim language.

Further regarding claims 18 and 19, the references, individually and in any combination, fail to show or suggest forming the first plurality of patterns (claim 18) or forming the second plurality of patterns (claim 19) by forming respective indentations. In one part (lines 8-10 of page 3), the Office Action, regarding claims 18 and 19, apparently asserts the structure of Fig. 14 of Pribat is relevant to the claimed formation of the first and second plurality of patterns by forming respective indentations. However, Fig. 14 of Pribat does not show or suggest the claim language. In another part (lines 7 and 8 of page 6), regarding claims 17-19, the Office Action states, "[the references] teach[] etching and using a masking material," but the action does not address the particular claim language. Thus, Applicant is deprived of a fair opportunity to reply (see M.P.E.P. § 706.02(j)).

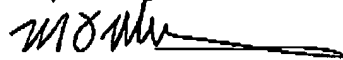
Because Pribat, Tsuda, Natsume and any combination of them fail to show or suggest the substance of claims 1, 2, 4-20 and 23-26, the rejection is improper. Accordingly, Applicant respectfully requests that the rejection be withdrawn.

CONCLUSION

As it is believed that the application is in condition for allowance, a favorable action and a Notice of Allowance are respectfully requested.

Dated: 8/26/5

Respectfully submitted,



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